

What Is Claimed Is:

1. An image sensing apparatus having an image sensor for sensing an image of an object,  
5 comprising:  
an analog-digital converter that operates at a predetermined frequency and converts an analog signal read from the image sensor to a digital signal; and  
a controller that controls a relationship  
10 between a phase of the analog signal read from the image sensor and a phase of a timing signal for operating said analog-digital converter in accordance with a peripheral condition of the image sensing apparatus.  
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2. The image sensing apparatus according to claim 1, further comprising a memory that stores a plurality of different phases of the timing signal in correspondence with different peripheral conditions in  
20 advance,  
wherein said controller searches the phase of the timing signal which corresponds to the peripheral condition.
- 25 3. The image sensing apparatus according to claim 1, wherein the peripheral condition includes temperature.

4. The image sensing apparatus according to claim 1, wherein said controller uses the timing signal having a first phase when the peripheral  
5 condition is a first condition, and uses the timing signal having a second phase when the peripheral condition is a second condition.

5. The image sensing apparatus according to  
10 claim 1 further comprising:

a plurality of output units that read signals from the image sensor; and

a multiplexer that multiplexes the signals from said plurality of output units to a time sequential  
15 signal and outputs the time sequential signal,

wherein the time sequential signal from said mutliplexer is outputted to said analog-digital converter.

20 6. The image sensing apparatus according to claim 1, wherein said controller adjusts the relationship between the phase of the analog signal read from the image sensor and the phase of the timing signal so that a digital signal obtained by converting  
25 the signal read from the image sensor by said analog-digital converter becomes maximum.

7. The image sensing apparatus according to claim 5, wherein said controller adjusts the relationship between the phase of the analog signal read from said image sensor and the phase of the timing signal so that a difference between the signals from said plurality of output units becomes minimum.

8. An image sensing apparatus having an image sensor for sensing an image of an object, comprising:

an analog-digital converter that operates at a predetermined frequency and converts an analog signal read from the image sensor to a digital signal; and a controller that controls a relationship between a phase of the analog signal read from the image sensor and a phase of a timing signal for operating said analog-digital converter on the basis of a comparison between signals obtained by relatively shifting the phase of the analog signal and the phase of the timing signal, and converting the analog signal by said analog-digital converter for each phase.

9. The image sensing apparatus according to claim 8, wherein the image sensor has a first area for sensing an image of an object and a second area which is shielded from light, and said controller determines the relationship between the phase of the analog

signal read from the image sensor and the phase of the timing signal based on the comparison between the signals from the second area obtained with the shifted phases.

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10. The image sensing apparatus according to claim 8 further comprising:

a plurality of output units that read signals from the image sensor; and

10 a multiplexer that multiplexes the signals from said plurality of output units to a time sequential signal and outputs the time sequential signal,

wherein the time sequential signal from said mutliplexer is outputted to said analog-digital

15 converter.

11. The image sensing apparatus according to claim 8, wherein said controller adjusts the relationship between the phase of the analog signal read from the image sensor and the phase of the timing signal so that a digital signal obtained by converting the signal read from the image sensor by said analog-digital converter becomes maximum.

25 12. The image sensing apparatus according to claim 10, wherein said controller adjusts the relationship between the phase of the analog signal

read from the image sensor and the phase of the timing signal so that a difference between the signals from said plurality of output units becomes minimum.

5           13.     A control method of an image sensing apparatus having an image sensor for sensing an image of an object and an analog-digital converter which operates at a predetermined frequency and converts an analog signal read from the image sensor to a digital  
10 signal, comprising:

          obtaining a peripheral condition of the image sensing apparatus; and

          adjusting a relationship between a phase of the analog signal read from the image sensor and a phase  
15 of a timing signal for operating the analog-digital converter in accordance with the peripheral condition.

          14.     A control method of an image sensing apparatus having an image sensor for sensing an image  
20 of an object and an analog-digital converter which operates at a predetermined frequency and converts an analog signal read from the image sensor to a digital signal, comprising:

          relatively shifting a phase of the analog signal  
25 read from the image sensor and a phase of a timing signal for operating the analog-digital converter; and  
          determining a relationship between the phase of

the analog signal read from the image sensor and the  
phase of the timing signal on the basis of a  
comparison between signals obtained by converting the  
analog signal by the analog-digital converter for each  
5 phase.